Land Use Working Group Recommendations

Introduction

There are three basic responses to global climate change: mitigate, adapt, or suffer. The more mitigating we do, the less adapting and suffering we have to do. The recommendations described below are this working group's best suggestions for immediate and long-term mitigation, to avoid as much forced adaptation and detrimental suffering as possible.

Why does land use matter to climate change mitigation? According to the State of California, the top three potential sources of greenhouse gas (GHG) reduction are:

1. Vehicle fuel efficiency
2. Smart land use & intelligent transportation
3. Renewable energy for public utilities

The state expects 18 million metric tons of CO2-equivalent to come from #2 -- that's more of a reduction on a local level than the state expects to achieve from utilities!

Right now, the City of Mountain View and its neighbors have a current rare opportunity for change. Many cities all over the Bay Area are operating sustainability panels, going through general plan revisions, and updating their housing elements – this city (and others) needs to put sustainability at the forefront of decision-making now, or we will not have a chance to revise for another 10 or more years. Major structural changes are occurring in our environment and are about to occur in the way the state and cities operate; once these changes happen, they won't revert. Mountain View has to proactively adapt, move forward, and look to the future; Pittsburg and Detroit were the Silicon Valleys of their day, and we cannot allow our city to fall into the same pattern of overuse, abuse, and decline.

Truly, this city must prepare or the future, not just make changes now. The unprecedented magnitude and nature of upcoming shifts and increases (in population and temperature and more) have the potential to overwhelm City governments; conventional planning processes are inadequate to deal with the major changes bearing down upon us. Our cities need to become "intelligently more urban" – this needs to be a driving goal from the outset.

The population of Santa Clara County will grow by about 35% by 2035 -- that's equal to the current populations of Sunnyvale, Santa Clara, Mountain View, Milpitas, Palo Alto, Gilroy, Campbell, and Morgan Hill combined. This is the natural current pace of births (minus deaths) and immigration (minus emigration) for our county; this increase is going to happen and is practically unavoidable.

For city governments, the critical question therefore is "How and where will people live?"

First, we need to recognize that sprawl contributes to global warming through Vehicle Miles Traveled (VMT) and the resulting pollution from internal combustion engine trips. We cannot just push populations further and further towards the Central Valley. 50% of Mountain View's GHG emissions come from transportation – concerted GHG reduction efforts must take how people get around into account. Mountain View must develop land so that more residents can easily choose non-car methods for daily activities, and so fewer people must drive to work in Mountain View from an area of affordable housing. This will improve our air quality mitigate GHG impact on the environment.

This working group strongly urges the City to take advantage of the General Plan Update to catalyze smart growth through healthy villages and walkable neighborhoods, in an effort to reduce GHG emissions and increase community prosperity and happiness. For example, one indicator of walkable neighborhood is what percentage of the city's population lives walking distance from a good-sized grocery store. When the city revamps its general plan, does that percentage get better? If not, is the city actually making good, impactful changes?

Another example: consider a MVWUSD schoolteacher living in Tracy. The school teacher would be using about 25 gallons of gas a week commuting from Tracy to Mountain View in an SUV. She would use 10 gallons a week commuting in a hybrid. However, she would only use 4 gallons a week commuting in that same SUV if she were able to move to Mountain View!

It is plain to see that what realtors have always said still rings true: location, location, location. Technology alone can not make up for sprawling land use. We need to create livable, walkable communities that support vivid, active lifestyles and de-emphasize transportation via individual automobiles.

Furthermore, as Avik Basu writes in his essay on smart growth, "mounting empirical evidence confirms the link between compact, high-density development and economic vitality. Ciccone and Hall (Ciccone and Hall. 1996) have studied how density influences worker productivity and have shown that doubling employment density increases worker productivity by 6%. Furthermore, they report that workers in the 10 densest states generated $38,782 of value while workers in the 10 least dense states produced $31,578 (25% less).

"A study by Cervero (Cervero 2000) showed that accessible cities, ones with efficient transportation and where businesses have easy access to labor markets, employed more productive workers than

dispersed or less accessible cities do."[1] The recommendations below encourage Mountain View to develop in an intelligently more urban way, encouraging well-planned, healthy higher densities for a more vital economy and environment.

What we're really looking at is what would make MV a great place to work and live in 30 years? We cannot focus solely on "the now"; we must consider, anticipate, and plan for future needs, just not current wants. The Land Use Subcommittee of California's Climate Action Team is eventually going to start requiring these sorts of changes; the City would be better off to start implementing these ideas now, under local control, and voluntarily.

[1] Avik Basu, "Smart growth towards economic performance," University of Michigan: 2005, http://www.umich.edu/~econdev/smartgrowth/index.html

Recommendations in Summary

1. Healthy Villages: The City should amend its General Plan and various Precise Plans to encourage a connected system of Healthy Villages: mixed-use community developments that incorporate many of residents' needs into a walkable radius.

2. Livable, Higher-Density Housing: Build well-designed, compact, green, mixed-use housing around our transit infrastructure and existing amenities. Integrate these land use patterns into the General Plan and actively implement them.

3. Affordable Housing: Increase the supply of affordable housing for people working in Mountain View and earning less than the median family income. Locate affordable housing near transit options and in village-style developments to reduce Vehicle Miles Traveled (VMT) both to and through the city.

4. Planning Incentives for Sustainable Developments: Provide fast-tracking incentives and density bonuses to developers and property owners in order to encourage sustainable developments in Mountain View.

5. Diversify Land Uses in Underutilized Areas: The city should work to develop coherent mixed-use villages in underutilized commercial zones to plan for Mountain View's future needs.

6. LEED Neighborhoods: Mountain View should adopt the LEED Neighborhood Development Rating System for both small and large developments. This is a national standard Mountain View can use to evaluate neighborhood location and design based on the combined principles of green building, smart development and redevelopment. This will allow the City to rate a development's potential for building a more livable, sustainable community over time.

7. Urban Agriculture and Open Space: Enhance open space in Mountain View with integrated community farming and develop a community garden requirement for the General Plan, either under the Parks section or as part of the Housing Element.

8. Grand Boulevards: Integrate Grand Boulevard concepts into the General Plan, for both El Camino Real and major thoroughfares inside Mountain View. Convert all parking on Castro Street into either dining/sitting space or bike parking. Design healthy villages around a network of Grand Boulevards to assure interconnectedness and mutual support between village centers. Ensure Grand Boulevard standards are written into the General Plan.

9. Ongoing Staff Education: The City should set aside staff education funds for a regularly-scheduled "Green Practices Update" session, to learn about sustainable best practices and current innovations in communities around the world.

10. Green Parking: Overhaul the General Plan's parking guidelines and the City's parking code to establish a green parking plan that promotes pedestrian priorities and reduces land dedicated solely to automobile parking.

Recommendation #1

Title: Healthy Villages

Working Group: Land Use

Statement of Issue

Residents need access to their basic needs and activities without having to drive a motor vehicle.

Recommendation

The City should amend its General Plan and various Precise Plans to encourage a connected system of Healthy Villages: mixed-use community developments that incorporate many of residents' needs into a walkable radius.

Our city's zoning needs to actively engage in development which encourages residents to accomplish most of one's daily activities without getting into an automobile. This will accomplish many excellent goals:

- Reducing GHG emissions (see Environmental Impact, below)
- Engendering cross-community communication and interaction
- Improving the physical heath of residents (every time a person walks somewhere instead of driving is a win for their cardiovascular and muscular health)
- Encouraging diversity in our local economy through improvements in our retail building stock
- Accommodating the aging baby boomer population (which prefers walkable, community-oriented development)

One thing everyone loves about Mountain View is its vibrant and walkable downtown. The City can encourage "mini-downtowns" through village-oriented zoning and redevelopment of existing strip malls and other neighborhood shopping centers; redevelopment that prioritizes pedestrian access over vehicular access. See the Appendix for a case study, existing excellent example, and list of potential areas for "village-izing."

Villages should include at least three different uses such as:

- Necessity retail (grocery store, drugstore, fruit stand, etc.)
- Amenity retail (restaurants, cleaners, salon/barbershop, etc.)
- Higher-density housing close to the village core; especially low-cost housing for village center workers and accessible housing for senior citizens and the disabled
- Commercial space for local businesses
- Educational facilities for preschool/daycare and/or elementary school
- Basic recreational facilities (e.g. a park, community center, trail access, gym, etc.)
- Meeting places (public & private; formal & informal; including religious spaces and outdoor seating)
- Attractive public transit (bus hub, rail, shuttles) that includes bicycle parking
- City services (fire, paramedic, police, library access, government service center)
- Medical/dental clinics or offices

Additionally, the City needs to amend the building codes to require new buildings to prioritize pedestrian-friendliness and accessibility over car-oriented access. Buildings should be constructed close to the public sidewalk and must have a principal entrance facing the street. Vehicle parking should be behind or under the site and may be reduced for buildings near transit stops or for buildings that incorporate a transit shelter or bicycle parking into their design. Minimum window requirements for walls facing the street help to ensure a more interesting (and safe) pedestrian environment.

These villages also need to relate to and support each other; neighborhoods connected with walkable pathways and bike lanes will make each individual village more comprehensive. For example, not every village could support a drugstore, but if a resident only needs to get to the next major intersection's village to get his or her prescriptions, then that resident's own village is more livable.

Also, please note: mixed use is not just vertical; the housing does not have to be on top of the retail. The grocery store can be across a pedestrian-friendly street from the residential housing component, which has a park or school behind it – this is horizontal mixed use. Horizontal mixed use fits perfectly into the current character of Mountain View. See the Appendix for an existing example of pedestrian-friendly horizontal mixed use here in Mountain View (that isn't Castro St.).

This is a long term (3+ yrs.) solution, with the potential for a huge impact in overall health and quality of life.

Environmental Impact

Transportation causes 50% Mountain View's total GHG emissions. Healthy Village concepts mean less driving needed (GHG reduction) for every resident on a daily basis. Imagine if everyone could live close to Castro St. and how much less driving within Mountain View would occur (trips that start and end in Mountain View).

A mere 9% reduction in solo trips translates into vehicle miles traveled (VMT) reduction of over 24 million miles annually -- that's an annual savings of over 700,000 gallons of gas and 13,630,000 pounds of CO_2.[2]

The chart below illustrates the various localized GHG ouputs per household in different parts of Mountain View. It is clear that households near amenities and services emit fewer greenhouse gasses – if this city can bring a walkable scale to more neighborhoods, the city's overall GHG emissions will only go down.

Still missing the neighborhood comparison data from MTC – will insert the chart when complete!

Fiscal Impact and Synergies

This recommendation is in line with the Transit and Transportation working group's emphasis on shifting our mobility paradigm away from private automobiles and back to walking, biking, and public transit. Additionally, any new development should line up with the Built Environment's recommendations for best building practices – allowing our city to fill itself with livable green urban villages.

[2] U.S. Conference of Mayors Energy & Environment Best Practices Survey Report, May 2006

There is cost of City staff and Council and commission members in reviewing developer proposals for converting the shopping centers and, as applicable, building new villages; but this cost is already inherent to city operations and would not increase due to implementation of this recommendation.

Many costs associated with the initial startup phases of the Healthy Villages concept would be borne by the developer at the outset; but the developer can easily recoup these costs through property and storefront sales and rentals.

Healthy villages oriented towards walking and biking could potentially reduce road maintenance costs for the city as well. Using village cores as a transit stop, there could be fewer stops and increased opportunity for more frequent transit, thus providing more transit riders and hence more fare box revenue with reduced service effort. Village cores use the City's infrastructure more efficiently through their higher-density layouts, thus reducing long-term maintenance costs for the City.

Obstacles

- Linking small parcels of land and otherwise working with property owners to redevelop existing car-oriented shopping hubs.
- Costs and time in finding developers to convert/redevelop existing shopping centers
- Cost and time in planning and establishing new villages.

Partnerships

Urban Land Institute
Mountain View Chamber of Commerce
VTA
Walkable Mountain View
Local fee developers

Appendix

Case Study

The City has many existing opportunities to transform neighborhoods into Healthy Villages with mixed-use cores. For example, there are several shopping centers already located near housing or transit that could become excellent village centers with the addition of a third or more use into the mix. One specific example is the corner of Middlefield and Rengstorff.

The shopping center is very auto-centric and presents an inhospitable environment for pedestrians and bicyclists. As an example, there is a central median that divides one side of Middlefield from the other for a quarter-mile. Restaurants and shops are tucked in the back of the complex, so they are not visible from the street. Pedestrians have to walk through a vast, barren expanse of parking to reach the shops and restaurants.

There is a bus stop on Rengstorff that is right on the edge of the shopping center. However, pedestrians have to walk a long way to reach the shops because they are tucked in the back.

The shopping center is surrounded by a mix of housing types including townhomes and single-family homes. However, the design of the streets (several wide lanes of traffic plus the median) and the non-pedestrian friendly design of the shopping center (expansive parking lot in front and shops in the back) make it less likely that residents will walk to the shopping center even though it is physically close.

Recommendations
Move the stores from the back of the lot to the front with entrances at the sidewalk.
Reduce parking spaces by one-third.
Build homes above the shops.
Improve pedestrian access across Middlefield Road.
Build homes at the back side of the lot to blend in with the existing neighborhood.

Existing Example

The area around Central Ave. and Cypress Point Dr. on Moffett Blvd. is a good example of a village area outside of Downtown Mountain View that accomplishes most of this recommendation's goals:

- The two shopping centers provide both necessity and amenity retail
    - One center includes a grocery store with fresh produce, a huge win for the neighborhood!
- Bus stops are easily accessible
- Good pedestrian access to cross Moffett Blvd. safely
- The adult school itself is very pedestrian-oriented
    - main entrance on the street
    - covered bike parking
    - wider sidewalks
    - windows and landscaping in a people-sized scale
    - auto access and parking are behind the building, leaving the front sidewalk uninterrupted for the length of the building
- New hotel development is also pedestrian-oriented

    - Auto parking in back
    - Main entrance facing the street
    - Wider sidewalks
    - Easy bus stop access
- Higher-density housing, both owned (townhomes) and rental (apartments) exist behind the shopping areas
- Trail entrance at the end of Central Ave.

This area is not totally ideal – the two shopping centers are still more car-oriented than pedestrian- or bike-oriented, with their front-access parking lots. The center next to the Adult School is better than the one across the street, since it allows one restaurant and two of the stores to be right on the sidewalk for easy pedestrian access. But this area is always lively with walkers, bus riders, and bicyclists (especially during commute times) going to school, work, or on errands; much more so than many other neighborhood shopping center areas listed below as candidates for redevelopment.

Areas for "Village-izing"

Listed below are existing shopping centers that are excellent candidates of potential Village cores. These shopping centers already have several of the Village concept components nearby; with some careful restructuring (eschewing the car and embracing the walk), these centers could be vibrant hearts of walkable, sustainable neighborhoods.

1) Old Mountain View – Grant and El Camino
2) Cuesta – Cuesta and Miramonte
3) El Monte – El Monte and El Camino
4) San Antonio – San Antonio and El Camino
5) East End – Americana and El Camino
6) Stierlin – Shoreline and Montecitio
7) Rancho Castro – Central and Rengstorff
8) Rengstorff – Rengstorff and Middlefield
9) El Norte – Old Middlefield and Rengstorff
10) Whisman – Whisman and Middlefield

Potential locations for new village development:

1) The Farms – Levin and Grant
2) Shoreline – Charleston and Shoreline
3) Sylvan – Sylvan and Moorpark
4) Mayfield – Mayfield and Central/Showers

Citations

KQED's Health Dialogues
April episode, story on The Preserve in Chino, CA
http://www.thepreserveatchino.com/community/

The National Institutes of Health (NIH) have funded USC's Keck School of Medicine to study whether **smart-growth principles can lead to a decrease in obesity and other health problems**. The study,

which will focus on the above housing development in Chino, Calif., marks the first time the NIH has funded such research. “[H]ow you build and make choices during the planning process is an exciting way to affect and shift the health of an entire population," said Marilyn Pentz, the director of the Center for Prevention Policy Research at the Keck School.

Recommendation #2

Title: Livable, Higher-Density Housing

Working Group: Land Use

Statement of Issue

California's current sprawl-oriented growth pattern is ineffective and unsustainable; even the Governor has said so.[3] The California Energy Commission reports that one of the "promising means" for reduction transportation fuel demand is to use an integrated planning method for transportation and land use.[4]

Mountain View is blessed with transportation infrastructure that can allow people to use methods other than solo-driving to get around. However, the City needs to complement this infrastructure with land use patterns that are conducive to walking, biking, and encouraging transit use.

Demographic shifts point to an increased desire for exactly this type of development. Whereas households with two parents and more than one child used to be a large majority of households in the nation, that family type now only comprises 33% of households -- and it's shrinking. The fastest growing demographic groups are those that are childless, have a single-parent family, or are households of single adults. The single adults category comprises young professionals and aging seniors; in fact, one out of five residents in Santa Clara county will be over 65 yrs old in 2030, which is approximately double what it is today. These demographic groups historically have preferred compact townhomes and condos near transit and amenities.[5] City planners need to look to the future and realize that not everyone needs or wants schools or a even a yard; more and more people want maintenance-free living options near vital community centers.

Recommendation

Build well-designed, compact, green, mixed-use housing around our transit infrastructure and existing amenities. Integrate these land use patterns into the General Plan and actively implement them.

Short Term:
Work with the General Plan process to develop healthy village plans that call for higher-density livable housing near transit in a coordinated, thoughtful manner. Higher-density housing is not effective if created in a vacuum – it must be located near transit options, walkable amenities, and other higher-density communities to be most effective.

Continue to capitalize on key parcels around our existing light-rail and Caltrain stations to build neighborhoods that include homes, shopping, and jobs that use the limited land efficiently. Review and revise FAR requirements to encourage developers to build at a minimum density that supports livable healthy villages and well-designed density.

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[3] "Schwarzenegger Embraces 'Smart Growth' Ideas to Curb Sprawl," CNN.com, Inside Politics, November 21, 2003.
[4] "Effect of Land Use Choices on Transportation Fuel Demand, " California Energy Commission, May 2005, http://www.energy.ca.gov/2005publications/CEC-600-2005-019/CEC-600-2005-019.PDF
[5] *Why Transit-Oriented Development and Why Now?*, Reconnecting America and the Center for Transit-Oriented Development, www.reconnectingamerica.org.

Medium Term:
Take opportunities to obtain regional and statewide funds in order to plan and build infrastructure to support transit villages. Examples of such programs include MTC's TLC program, ABAG's planning grants, and the statewide Proposition 1C funds for transit-oriented development. Palo Alto just got a grant from MTC to do work on California Avenue, for example.

Long Term:
Actively implement the General Plan.

Environmental Impact

The Urban Land Institute estimates a 30% reduction in vehicle miles traveled as the result of building more compact, infill development. This would result in a 7 to 10 percent reduction in transportation-related CO2 emissions by changing land use alone.[6] This means Mountain View could save over 927,000 metric tons of CO2 by 2030,[7] just by encouraging more compact development.

Fiscal Impact and Synergies

Well-designed higher-density developments actually save a city money in infrastructure maintenance costs. A recent study analyzing the costs of sprawl estimated that more than $100 billion in infrastructure costs could be saved over 25 years by pursuing better planned and more compact forms of development.[8]

Initial costs for planning and infrastructure towards green-built higher-density housing could be offset by funds from regional and statewide support programs for this type of development. For example, in Proposition 1C, $850 million is dedicated to efforts to support regional planning, housing and infill development. An additional $300 million is dedicated to supporting transit-oriented development specifically.

Additionally, a team of economists at Rutgers University in New Jersey states in a recent publication that urban sprawl is costing a bundle, merely in New Jersey alone. Potential capital costs attributable to sprawl development patterns in the state of New Jersey were cited at $1.3 billion over 20 years for roads, water, sewer and school facilities. Additional operating and maintenance costs of development reached $400 million annually. Capitalized at current borrowing rates, these numbers translate to a $7-8 billion cost for sprawl over the twenty years from 1992 to 2012.[9] This working group is not prepared to make similar calculations for Mountain View or California at this time, but the fiscal impact is striking nonetheless.

Furthermore, the city could see increased tax revenues from sites that are being used to their fullest potential. And research consistently shows that both residential and commercial property values rise with proximity to transit stations. This translates into expansion of the municipal property tax base, and

[6] "Growing Cooler: the Evidence on Urban Development and Climate Change," Urban Land Institute, 2007, http://www.uli.org/AM/Template.cfm?Section=Home&CONTENTID=118999&TEMPLATE=/CM/ContentDisplay.cfm
[7] 421428 metric tons CO2/year from transportation (ICLEI report); a reduction of 10% = 42142.8 metric tons CO2/year; over 22 years = 927141.6
[8] Richard M. Haughey et al., *Higher-Density Development, Myth and Fact* (Washington, D.C.: Urban Land Institute, 2005)
[9] Kasowski, Kevin. September 1992. "The Costs of Sprawl, Revisited." *Developments: The National Growth Management Leadership Project Newsletter.*

a direct improvement in tax revenues in the very neighborhoods where public infrastructure and service delivery costs are reduced due to increased densities.[10]

Obstacles

- Community resistance to change
- Staff time in educating adjacent residents as to the positive impact of new nearby development
- Potential for more traffic in a localized area if the housing development is not planned in coordination with transit opportunities
- Existing zoning restrictions

Partnerships

MTC
State of California Department of Transportation
Greenbelt Alliance
Silicon Valley Leadership Group

[10] http://www.mass.gov/envir/smart_growth_toolkit/pdf/TOD_biblio.pdf

Appendix

Additional Information

It is important to note that "density" refers not only to high-rise buildings. In this report, higher density simply means new residential and commercial development at a density that is higher than what is typically found in the existing area. Thus, in a sprawling area with single-family detached houses on one-acre lots, single-family houses on one-fourth or one-eighth acre are considered higher density. In more densely populated areas with single-family houses on small lots, townhouses and apartments are considered higher-density development.[11]

Classics on the Square on Evelyn Ave., for example, fits the character of the neighborhood while still creating a medium- to medium-high density housing opportunity. These are desirable units with many benefits and an efficient footprint; the development could only be improved by incorporating green building and water efficiency standards. It is an excellent model to improve upon and implement in appropriate places in Mountain View.

[11]Richard M. Haughey et al.

Recommendation #3

Title: Affordable Housing

Working Group: Land Use

Statement of Issue

Below-market-rate (BMR) housing opportunities in our city, particularly ownership options, will keep dedicated public servants (e.g. teachers, police, firefighters and city staff) in our community and reduce GHGs emitted (and traffic jams caused) during longer commutes from areas that currently have more affordable housing. It will also help preserve the economic, social, and cultural diversity that makes Mountain View such a unique and dynamic place to live.

Recommendation

Increase the supply of affordable housing for people working in Mountain View and earning less than the median family income. Locate affordable housing near transit options and in village-style developments to reduce Vehicle Miles Traveled (VMT) both to and through the city.

Remember our schoolteacher living in Tracy, and those 21 gallons of gas she'd save every week if she lived in Mountain View. But it's not just about commute trips, it's about overall trips too – to and through the city. Developing affordable housing in village-style centers and infill locations near transit hubs will also reduce VMT for everyday activities (see the Healthy Villages recommendation).

Mountain View should strive to meet the final Regional Housing Needs Allocation estimate adopted on May 15, 2008; specifically the 571 units for very low income, the 388 units for low income and the 488 units for moderate income families.[12]

Instead of accepting in-lieu funding, require developers to construct the required BMR units, and dedicate some to ownership as well as rental. Although owners may not enjoy much appreciation if they choose to sell the unit, they will enjoy tax breaks and build equity that might allow them to buy at market rate in the future. Without this opportunity, dedicated Mountain View service employees may choose to live outside the city and eventually be recruited to work in the city where they live.

Additionally, the City can alter BMR rules to include some more creative provisions to impact VMT and overall community health:

- Give application preference to people and families who commit to having only one car in their household with the stated goal of driving less
- Give application preference to people and families who work or go to school within walking distance of a given development
- Allow preferential zoning and/or planning approval processes for affordable housing that meets green building standards (see Fiscal Impact, below)
- Allow preferential zoning and/or planning approval processes for affordable housing developments that provide transit passes to all of the tenants

This is a medium- to long-term solution.

[12] http://www.abag.ca.gov/planning/housingneeds/pdfs/Final_RHNA.pdf

Environmental Impact

Affordable housing has both the aforementioned beneficial social impacts, and also can help lower the City's transportation-related GHG emissions levels.

Take city employees as an example. Approximately 325 city employees live outside of transit commute range (that is, they must drive a car to get to work every day) – in places like Hollister, Watsonville, Danville, Pleasanton…even as far away as Rocklin and Fresno,[13] often in an effort to find affordable housing.

If affordable housing in green urban villages were available to them in Mountain View, commute length could fall by an average of 52 miles round-trip[14] every day -- and that's excluding the ten employees who live 100 miles or more away from Mountain View.

The California Department of Transportation says the average bay area vehicle fuel economy is 20.6 miles per gallon. EPA.gov says a gallon of gasoline is assumed to produce 19.4 pounds of CO2. Therefore, affordable housing in Mountain View could potentially reduce GHG emissions coming into the city by 1876 metric tons of CO2/year[15] – and that's just for City employees.

Fiscal Impact and Synergies

City staff time needed for meetings with developers and administering ownership programs. The project development costs can be partially offset by Housing Impact Fees from other development projects in City.

Building green affordable housing can potentially also lower the operating costs and environmental impact of the building (solar power, reduced energy consumption, etc.), which in turn potentially allows the building to take advantage of existing statewide rebates and require fewer subsidies to build. Please refer to recommendations from the Built Environment and Energy working groups for more information on these potential savings.

Obstacles

- Education (about BMR) and assistance programs for eligible individuals and families
- Administration of BMR programs
- Developer resistance; it is much easier to pay in-lieu fees instead of actually building and administering the BMR units

Partnerships

Eden Housing
Community Housing Developers

[13] City of Mountain View employee residence map 2008, provided by Peter Skinner (Senior Administrative Analyst, City of Mountain View)
[14] Average commute length of the 13 zip codes most populated by Mountain View city personnel outside of easy transit range is 26 miles one-way; zip codes as displayed in map sited above
[15] 19.4 lbs / 20.6 miles * 52 mi/day * 260 working days/year * 325 city employees = 4,138,039 lbs/CO2 = 1876 metric tons of CO2/year.

Habitat for Humanity Silicon Valley
Palo Alto Housing Corporation
US Department of Housing and Urban Development
BRIDGE Housing (www.bridgehousing.org)
Mid-Peninsula Housing (www.midpen-housing.org)
Charities Housing (www.charitieshousing.org)
First Community Housing (www.firsthousing.org)
Green Affordable Housing Coalition (http://frontierassoc.net/greenaffordablehousing/index.shtml)

Recommendation #4

Title: Planning Incentives for Sustainable Developments

Working Group: Land Use

Statement of Issue

The City needs to enhance existing market interests in green developments to drive developers and property owners towards sustainable goals.

Implementing further density bonuses and similar types of incentives will catalyze all the green building- and land use-related recommendations in this report, ultimately leading to healthier buildings and neighborhoods.

Recommendation

Provide fast-tracking incentives and density bonuses to developers and property owners in order to encourage sustainable developments in Mountain View.

Some suggested characteristics that would be deserving of fast-tracked planning/zoning review processes, enhanced weight towards staff approval, and/or fee reductions include:

- Developments that facilitate Village Centers
- Redevelopment that fits with the Grand Boulevard plan for El Camino Real, e.g.
    - Uniting parcels of land to develop higher-density uses
    - Overlapping residential zoning with commercial/retail to create mixed use developments (like Two Worlds at El Camino and Calderon)
    - Zoning district overlay to drive the market towards consolidating parcels
- Higher-density buildings near transit
- Green building practices (see recommendations from the Built Environment working group)
- Building & business styles that encourage walkability, e.g.:
    - windows on the sidewalk
    - wider sidewalks
    - sidewalks unbroken by many driveways
    - parking underneath the building (or at least behind it)
- Building & business styles that encourage bikeability
    - bike parking
    - showers/locker space inside
    - public water availability
- Medium, Medium-high, or High density residential developments with a community garden component
- Green economy (“green collar”) businesses

Additional density bonuses near transit hubs and stations should be tied to meeting certain policy objectives rather than outright increases. These policy objectives include mixed-use development, affordable housing, underground parking, and a greater reliance on non-car modes of transportation.

Density bonuses encourage smart choices on transit options, maximize a pedestrian character of the neighborhood and more efficiently use resources.

Some suggested density bonuses include appropriate motivational FAR increases (and increasing the allowable number of residential units) for developments:

- When all parking is provided within the building, entirely below grade, or in a parking garage of at least two levels
- When at least 20% of the dwelling units are affordable to households whose income does not exceed half of the local median household income
- When at least 50% of a ground floor of a residential building is devoted to commercial/retail uses.
- Developments that meet the Built Environment working group's recommendations for green building, or LEED gold status, or other equivalent green building standard
- When the development meets the Transit and Transportation working group's recommendations for non-automobile-oriented location, design, and amenities

This is a short-term solution with long-range impacts; these changes can be incorporated into the planning review process as quickly as official city process will allow.

Environmental Impact

This set of suggested city process changes will support GHG reductions through better planning already mentioned in earlier recommendations relating to Healthy Villages and Livable High-Density Housing. These incentives are necessary to accomplish the GHG reduction goals of the preceding recommendations. The overall benefits include:

1) Reduction in GHG emissions due to increased walkability
2) Healthier communities (healthier economy, diversity in tax base)
3) Healthier buildings (green building standards)

Fiscal Impact and Synergies

- Denser commercial development will broaden the City's tax base through an increase in available leasable square footage.
- Synergy with the Built Environment, Energy, and Transportation groups' recommendations for specific changes to building codes and standards towards sustainable building practices.

A report from the University of Michigan's College of Architecture and Urban Planning explains how catalyzing this type of development can have major fiscal benefits for a municipality. To summarize:

Higher-density population centers gain fiscal advantages in two different ways. The first savings are through economies of scale -- the marginal costs of serving additional population decreases as more residents cluster in a given region. The second set of savings is through economies of geographic scope -- the marginal costs of serving an additional person decreases as the individual locates closer to existing infrastructure. Together, these ideas imply that both compact and higher-density communities can lead to significant savings in operational costs.

To look at it on a national scale, in 1999-2000, localities spent nearly $140 billion to create new infrastructure such as schools, roads, and sewer and utility systems. In addition, over $200 billion was spent on recurring costs such as infrastructure maintenance, police and fire services, and garbage collection. Managing this growth in an intelligent way provides an opportunity for significant savings for local municipalities. Several studies claim that over 2000-2025, governments practicing managed growth can reduce by 11.8% or $110 billion their road building costs, 6% or $12.6 billion dollars on water and sewer costs, and 3.7% or $4 billion for recurring annual operations and maintenance costs.[16]

Even though those numbers aren't reflective of Mountain View's budgets, the research shows that the city could still see an overall cost reduction of 21% or more over the next 20 years, if it encourages this type of "smart growth" through zoning and planning incentives.

Obstacles

- Planning dept. staff will need focused education on how to evaluate projects for positive characteristics
- Economic Development staff will need to spend more time working with developers to find the appropriate incentives and relationships to make these sorts of projects happen

Partnerships

ABAG
Urban Land Institute

[16] Avik Basu, 2005 http://www.umich.edu/~econdev/smartgrowth/index.html

Appendix

Citations

Urban Land Institute presentation: “A Plan for Tomorrow: Creating Stronger & Healthier Communities Today”

Recommendation #5

Title: Diversify Land Uses in Underutilized Areas

Working Group: Land Use

Statement of Issue

Mixed-use developments that incorporate housing, commercial space, and retail options will attract a diverse range of employers and residents, helping to extend Downtown-like vitality to otherwise underserved and underused areas.

The city's population is going to grow, and these underutilized areas are easy targets for redevelopment to accommodate this growth, in housing, services, and employment.

Recommendation

The city should work to develop coherent mixed-use villages in underutilized commercial zones to plan for Mountain View's future needs.

Move away from "commercial-only" zones, and transform those currently underused areas into vibrant communities. The areas around Clyde Ave. area near Ellis, Dana/Pioneer, and North Bayshore are potential goldmines for sustainable development in Mountain View; the City should use these areas to plan for future growth, not preserve inefficient models that cannot sustain the city's needs. This will help achieve earlier housing- and density-related recommendations.

Well-planned, Higher-density, mixed-use redevelopment in current commercial-only zones can:

- Enhance our future economic competitiveness while gas prices skyrocket
- Create sustainable housing modes for ever-increasing population growth
- Reduce pressure on local budgets
- Reduce commuting time
- Help us preserve open space for parks and outdoor recreation

Remember the 35% population growth expected in Santa Clara County by 2035. This is sheer growth, not attracting new people to live in the area. The City needs to plan for its slice of this growth; these people will need to live somewhere; ideally they would also work and shop here as well, and not need a car to do any of it.

The North Bayshore area in particular is currently extremely underutilized; it is a striking opportunity for Mountain View to create a model sustainable community of the future, while expanding its commercial and retail tax base and addressing the city's perpetual housing shortage. See a more in-depth case study in the Appendix.

Environmental Impact

4) Reduction in GHG emissions due to shortened commutes to employment

Example: If 100 people lived *and* worked in N. Bayshore (instead of driving to N. Bayshore), this would reduce the city's GHG emissions by 266.55 metric tons of CO2/year.[17]

5) Reduction in GHG emissions due to reduced car trips to shopping options
6) More efficient land use with less square footage paved for parking creates more efficient GHG conversion, reduction in overall temperature, and natural replenishing cycle for the bay and Stevens Creek watershed

Fiscal Impact and Synergies

Based on the way we currently fund local governments:

- Addition of further retail components in the area will increase sales tax revenue[18]
- Denser commercial development will broaden the City's tax base through an increase in available leasable square footage.
- Mixed-use developments attract professional workers, which in turn will attract a greater variety of commercial business types, diversifying the City's tax base[19]
- Compact development reduces infrastructure costs and saves money[20]

See the Appendix for a more thorough discussion of research supporting mixed-use development as an economic boon for a city.

These concepts compliment the Biodiversity group's concepts of preserving and enhancing open space, as well as the Transportation group's emphasis on non-car modes of transportation for commutes and errands.

Obstacles

- Precise Plans will need altering to plan for coherent and efficient mixed use development
- Attitude towards "Commercial Only" zones will need to evolve

Partnerships

William McDonough & Partners
North Bayshore, Clyde Ave, and Dana/Pioneer employers
VTA, MTC

[17] 19.4 lbs / 20.6 miles * 24 mi/day * 260 working days/year * 100 residents = 587,650 lbs = 266.55 metric tons; see Appendix for statistical data references

[18] *Regional Responses: Smart Growth and Affordable Housing* presentation by Carol Burns and Kimberly Vermeer for the Massachusetts Citizen Housing and Planning Association.

[19] GVA Marquette Advisors and Maxfield Research. *Workforce Housing: The Key to Ongoing Regional Prosperity* Found at www.fhfund.org/_dnld/reports/Workforce%20Housing_Full%20Report.pdf.

[20] Bollinger, Berger and Thompson (2001) as cited by the Brookings Institution in "Is Washington Ready for Smart Growth" presentation. October 2004

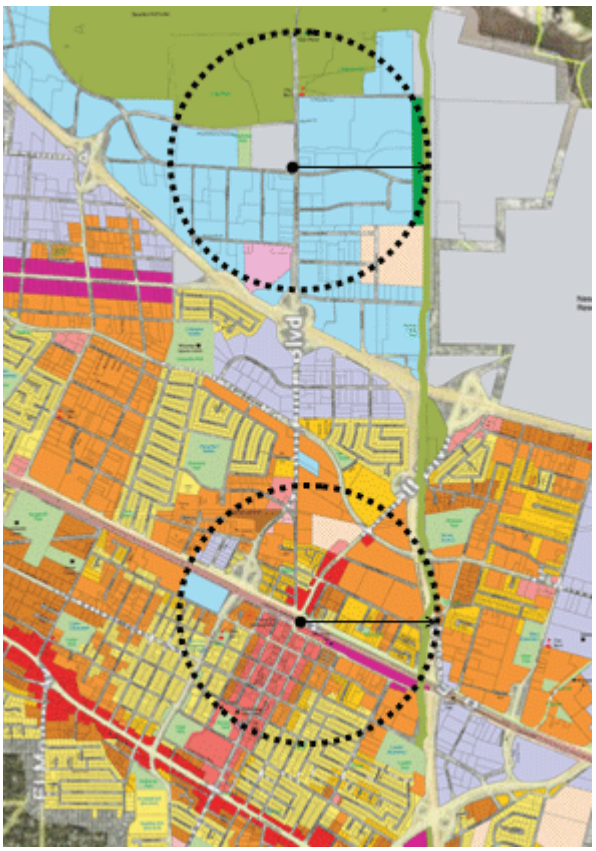
Appendix

Citations

Mounting empirical evidence confirms the link between compact, high-density development and economic vitality. Ciccone and Hall (Ciccone and Hall. 1996) have studied how density influences worker productivity and have shown that doubling employment density increases worker productivity by 6%. Furthermore, they report that workers in the 10 densest states generated $38,782 of value while workers in the 10 least dense states produced $31,578 (25% less).[21]

Carlino (Carlino 2001) also links denser local economies with increasing patent activity. He reports that the number of patents per capita rose 20-30% for every doubling of density which in turn increases the competitiveness of denser regions over less dense regions.

Case Study: North Bayshore



The North Bayshore area is currently extremely underutilized; it is a striking opportunity for Mountain View to create a model sustainable community of the future, while expanding its commercial and retail tax base and addressing the city's housing shortage.

Mixed-use developments that incorporate housing, commercial office space, and retail options will attract a diverse range of both employers and residents, helping to extend Downtown-like vitality to an otherwise underserved and underused area.

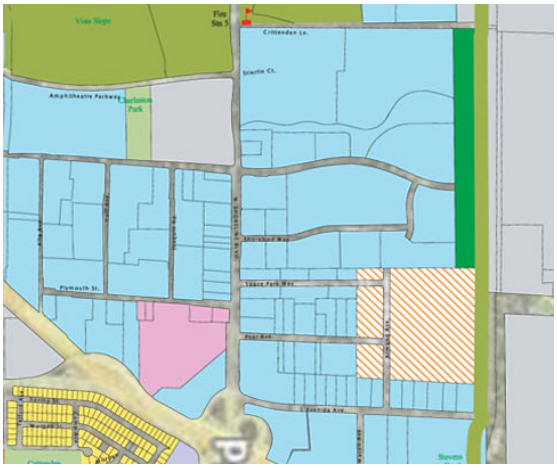
The image shows a half-mile radius around both Downtown and N. Bayshore; it clearly shows the mixed-use vigor and diversity around Castro St. that the Shoreline/Charleston area almost completely lacks.

Higher-density, mixed use redevelopment can:

- Enhance our economic competitiveness by attracting a diverse resident base
- Reduce pressure on local budgets
- Reduce commuting time
- Help us preserve open space for parks and outdoor recreation

[21] http://www.umich.edu/~econdev/smartgrowth/index.html

There are existing proposals to revamp the North Bayshore area into a vital community. Compare the area's current land use…



…with what it could look in one conception of a mixed-use redevelopment.

Blue = commercial
Red = retail
Yellow = residential
Green = open space

This working group would like to see this sort of development for North Bayshore in the future, with the caveat that new development needs to plan for rising flood levels that may occur with sea level change (as posited in the Adaptation and Climate Change's report).This sort of redevelopment can start now, and have a positive impact for years to come; its ultimate fruitfulness is a long-term win for our city and the whole Bayshore area.

Calculations

- EPA.gov says a gallon of gasoline is assumed to produce 8.8 kilograms (or 19.4 pounds) of CO2
- ABAG says the average commute length is just over 12 miles one way in the Bay Area
- The calendar says there are 260 working days in a year (52 weeks/year, 5 days/week; not counting holidays)
- NRDC researchers, relying on data from CA DOT say the average bay area vehicle fuel economy is 20.6 miles per gallon

Therefore, 100 units of housing for workers in the N Bayshore area could potentially reduce the city's GHG emissions by 266.55 metric tons of CO2/year.

Recommendation #6

Title: LEED Neighborhoods

Working Group: Land Use

Statement of Issue

The City needs a method for evaluating development that takes into account the "big picture" – a method that unifies overall standards to bring precise plans, zoning exceptions, and individual project approvals together in a coherent way.

Sustainable living cannot happen in a series of isolated redevelopment projects; there must be an overarching vision or set of standards to guide the community towards healthy development – a General Plan for sustainability.

Recommendation

Mountain View should adopt the LEED Neighborhood Development Rating System[22] for both small and large developments. This is a national standard Mountain View can use to evaluate neighborhood location and design based on the combined principles of green building, smart development and redevelopment. This will allow the City to rate a development's potential for building a more livable, sustainable community over time.

The LEED Neighborhood Development Rating System emphasizes the design and construction elements that bring buildings together into a neighborhood, and relate the neighborhood to its larger region. Use of this rating system will allow Mountain View to measure developments in terms of revitalization, reduced land consumption, reduced automobile dependence, promotion of pedestrian activities, improved air quality, and reduced water runoff with the objective of building, over time, more livable, sustainable communities for people of all income levels.

For an overview of all the topics the LEED for Neighborhoods system takes into account, review the LEED for Neighborhood Development Pilot Draft Project Checklist[23] available on the USGBC website and in the attachments to this report. Please see the Appendix for a slightly more thorough explanation of this system's benefits to communities.

This working group is not suggesting that every project must be LEED registered or certified; instead, we encourage the City to use the LEED for Neighborhoods checklist and guidelines to evaluate zoning changes, exceptions, plan amendments, and other similar decisions.

Adopting this sort of unifying standard will bring together all sustainability recommendations into a forest, rather than lots of individual trees.

This solution has short-, medium- and long-term implications.

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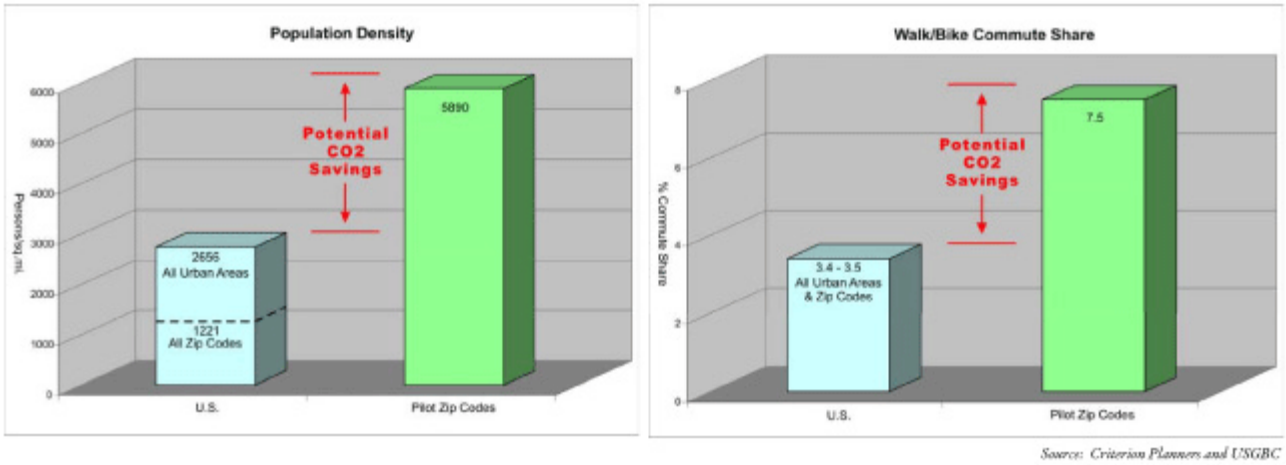
[22] http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148
[23] http://www.usgbc.org/ShowFile.aspx?DocumentID=4109

Environmental Impact

The US Green Building Council commissioned studies of the potential impacts of "LEED for Neighborhoods" implementations in pilot communities. In one such study, conducted by Criterion Planner, LEED neighborhoods showed remarkable improvements in GHG reductions compared to similar neighborhoods not in the pilot program. For example, the charts below show potential CO2 savings from commute pattern changes that emerge in LEED communities:



"For their work commute, residents in the pilot projects' zip codes are 2.5 times more likely to use public transportation than residents in all zip codes. Furthermore, they are more than twice as likely to bicycle or walk to and from work."[24]

Fiscal Impact and Synergies

Minimal cost to the City; any costs for staff education or printing materials could potentially equalize with improved efficiencies in planning review (if developers/applicants must fill out the LEED for Neighborhoods checklist first).

This recommendation directly relates to the work of the Built Environment, Transit & Transportation, Waste & Recycling, Water, Public Outreach and Biodiversity groups – the LEED rating system takes all these different aspects of community-building into account.

Obstacles

- Getting developer buy-in
- Educating residents about what changes and positive outcomes this set of standards could bring to the community
- Staff education on the content of the LEED for Neighborhood concepts, rating system, and basic checklist.

Partnerships

US Green Building Council
LEED-certified professionals in architecture, civil engineering, and planning fields

[24] www.usgbc.org/ShowFile.aspx?DocumentID=3773

Appendix

Benefits of Developing a LEED for Neighborhood Development Community
From the US Green Building Council's website, http://www.usgbc.org/

The LEED for Neighborhood Development Rating System integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design. LEED certification provides independent, third-party verification that a development's location and design meet accepted high levels of environmentally responsible, sustainable development.

Reduce Urban Sprawl.
In order to reduce the impacts of urban sprawl, or unplanned, uncontrolled spreading of urban development into areas outside of the metropolitan region, and create more livable communities, LEED for Neighborhood Development communities are:

- locations that are closer to existing town and city centers
- areas with good transit access
- infill sites
- previously developed sites
- sites adjacent to existing development

Typical sprawl development, low-density housing and commercial uses located in automobile-dependent outlying area, can harm the natural environment in a number of ways. It can consume and fragment farmland, forests and wildlife habitat; degrade water quality through destruction of wetlands and increased stormwater runoff; and pollute the air with increased automobile travel.

Encourage healthy living.
LEED for Neighborhood Development emphasizes the creation of compact, walkable, vibrant, mixed-use neighborhoods with good connections to nearby communities. Research has shown that living in a mixed-use environment within walking distance of shops and services results in increased walking and biking, which improve human cardiovascular and respiratory health and reduce the risk of hypertension and obesity.

Protect threatened species.
Fragmentation and loss of habitat are major threats to many imperiled species. LEED encourages compact development patterns and the selection of sites that are within or adjacent to existing development to minimize habitat fragmentation and also help preserve areas for recreation.

Increase transportation choice and decrease automobile dependence.
These two things go hand-in-hand; convenient transportation choices such as buses, trains, car pools, bicycle lanes and sidewalks, for example, are typically more available near downtowns, neighborhood centers and town centers, which are also the locations that produce shorter automobile trips.

Benefits to Project Developers of LEED for Neighborhood Development Communities

Potentially reduced fees or waiting periods.
Increasingly, municipalities are reducing fees or waiting periods associated with the approval process for community projects that can demonstrate a commitment to sustainability. Successfully completing

the first stage of LEED for Neighborhood Development certification (pre-review approval) may assist projects that are still in the planning stages to gain the necessary approvals as expediently and cost-effectively as possible.

A good impression on your neighbors.
A LEED for Neighborhood Development certification can help projects explain the environmental and community benefits of a project to residents and businesses in nearby areas. The rating system also encourages projects to work collaboratively with the existing neighborhood to make sure their needs are taken into account.

Higher tenancy rates.
Rising demand for housing in highly walkable or transit-accessible areas can result in higher tenancy rates.

<in final report, insert PDF http://www.usgbc.org/ShowFile.aspx?DocumentID=4109 here>

Title: Urban Agriculture and Open Space

Working Group: Land Use

Statement of Issue

Farmland—or working landscapes—provide economic, environmental, and social benefits. Locally grown food maintains its freshness and nutritional value, contributes to the county's food security, and can also reduce transportation related air pollution and costs.[25]

Mountain View has strong agricultural roots. The community has clamored for community gardens. The creation of community organic farming, tied to the school system and powered by community garden volunteers can create educational opportunities, meet the public demand for gardens and ultimately enhance the community's food security.

Recommendation

Enhance open space in Mountain View with integrated community farming and develop a community garden requirement for the General Plan, either under the Parks section or as part of the Housing Element.

Short Term:
Encourage rooftop gardens and edible landscaping with appropriate building and zoning codes. Support the concept of "Victory gardens" – small-plot, localized urban farming that shows residents how "their" land can directly help with the food supply – in the General Plan. Work with existing HOAs and developers to incorporate community garden components into existing and new developments, especially for medium- to high-density housing.

Medium Term:
Build on the programs already running at Deer Hollow Farm to expand orchard-related learning and growing opportunities. Work with Mountain View Trees and other groups to get high school students involved in community garden programs. Consider dedicating small parcels of public parkland to community gardens, especially in areas with higher-density housing. Work with the Farmers' Market and other groups to offer more affordable, organic produce and set a reduced-cost for produce going to low-income families.

Long Term:
Work with local non-profit organizations (like POST) to acquire the orchard lands near the intersection of Middlefield and Whisman and/or use the orchards near Cuesta Park to create another educational, community farm that is more accessible to the community. No hike is required, light rail and bus lines run nearby for easy access. Enhance the programs already offered at Deer Hollow in this facility by expanding it with facilities like the Full Circle Farm[26] in Sunnyvale, for example:

[25] Sustainable San Mateo County, 2008 Indicators report, pg 12, http://www.sustainablesanmateo.org/reports/2008IndicatorsReport/IndicatorsWholeReport.pdf

[26] Full Circle Farm community presentation, http://64.78.36.136/Presentations/Community1/Community1_files/frame.htm, "What we bring to the community"

- Affordable, organic produce
- Reduced-cost produce for low-income families
- Preserving community use with open space
- Good-neighbor composting program
- Community festivals & events
- Hands-on nutrition, sustainability & science education
- Community gardening & cooking classes

Integrated community farming can enhance city open space, create more potential use for rainwater collection, and help mitigate the heat island effect from buildings and parking lots (see Built Environment and Biodiversity groups' recommendations on these topics). There are no downsides to healthy community gardens; everyone wins.

Environmental Impact

Reinvigorating urban agriculture in Mountain View could have striking reduction effects on local greenhouse gas emissions. The impact estimates for the Full Circle Farm[27] in Sunnyvale are:

- Sequester 31,500 lbs CO2 from atmosphere into soil
- Prevent another 9000 lbs CO2 into atmosphere due to 150,000 lbs of locally grown food (75 tons produce * 0.08 lb CO2/ton-mile * 1500 miles)
- Early preparation for rising oil prices due to Peak Oil:
    - Re-localize the food supply
    - Alternative fuels cannot replace the energy density of fossil fuels
    - A sustainable future must restore local self-sufficiency

Fiscal Impact and Synergies

Developing a community garden component for the General Plan will not cost the city anything additional, as long as it is done during the current revision process.

Encouraging community gardens, rooftop gardens, and edible landscapes through appropriate zoning changes and discussions with developers in the early stages of project planning will not incur any additional costs for the city.

Costs of converting current landscaping to community garden space are minimal, considering the City already spends X on landscaping annually. Turning over some current monoculture landscape to community garden efforts could actually reduce City maintenance costs over the long term, as volunteers take over the maintenance of certain areas. Initial costs would be staff time to select a site and a non-profit to administer the site. Many different grants and funding opportunities exist to offset these costs, including:

- The USDA's Community Food Projects Competitive Grants Program
- The Duncan-Dalton Foundation
- The Satterberg Foundation (granted $40,000 to Sunnyvale to start a community garden)
- California Foundation for Agriculture in the Classroom (for more education-specific grant programs, see the Appendix)

[27] Full Circle Farm community presentation, http://64.78.36.136/Presentations/Community1/Community1_files/frame.htm, "Environment & Sustainability"

This recommendation ties directly into many of the proposals mentioned in the Biodiversity group's report, as well as green roof and edible landscaping components in the Built Environment report.

Obstacles

- Proactive community education needed to counteract negative perceptions of community gardens; this must be done in advance of any actual community garden construction proposals. The City could leverage relationships with several non-profit organizations mentioned below to accomplish this sort of educational campaign.
- Cost of acquiring or arranging acquisition of land for community gardens
- Potential cost of converting current mono-use landscaped space (e.g. parking lot trees, parkland) into edible landscapes or community garden space

Partnerships

Mountain View Trees
Midpeninsula Regional Open Space District
Peninsula Open Space Trust
Santa Clara County
Friends of Deer Hollow Farm
Sustainable Community Gardens
Santa Clara Unified School District
Fairview Gardens
CoolEatz
Village Harvest
Bay Tree Design, Inc.
UC Berkeley Cooperative Extension, San Jose State University, Stanford University
Santa Clara County Master Gardeners
Conexions: Partnerships for a Sustainable Future
Second Harvest Food Bank of Santa Clara and San Mateo Counties
American Community Gardening Association

Appendix

Web Sites

Many grant opportunities exist to support gardens in schools, or education-related garden development. An excellent list is available on the California School Garden Network site:
http://www.csgn.org/page.php?id=30

Recommendation #8

Title: Grand Boulevards

Working Group: Land Use

Statement of Issue

Mountain View's connections between its neighborhoods need improvement in order to encourage healthy lifestyles and non-car methods of transportation. Some thoroughfares are very pleasant for walking and cycling, and easy to access for public transit; many others lack key characteristics that can transform a series of streets into a network of livable communities.

Recommendation

Integrate Grand Boulevard concepts into the General Plan, for both El Camino Real and major thoroughfares inside Mountain View.

Short Term:
Convert all parking on Castro Street into either dining/sitting space or bike parking.

Castro Street is Mountain View's most treasured, well-featured street; its streetfront parking gives front-and-center priority to individual cars, which is exactly the opposite of what this Task Force wants Mountain View to accomplish. The City should reclaim those spaces for public use, emphasizing walkability, non-car transportation, and community gathering places instead.

When the City started its parking space rental program, it instituted a maximum number of spaces that could be rented. The City has reached this cap, with still more businesses left wanting to rent their parking space. This working group would like to see every parking space available for rental.

Further, if a retail establishment doesn't want its streetfront parking for dining or seating space, the City should covert it to informal gathering places and/or simple, functional bike racks. Suggested improvements include planters with benches and tables, or even integrated tabletop game boards (e.g chess), to encourage impromptu gatherings that help create a sense of community. Prominent and easy bicycle parking is severely lacking in Downtown (witness all the bikes locked to tree cages on a Thursday night); this would be an easy way to solve this problem and visibly emphasize Mountain View's commitment to alternative means of transportation. 12 - 16 bikes can fit into one car parking space, so even one dedicated space for bikes per block would be a huge improvement.

Medium and Long Term:

Design healthy villages around a network of Grand Boulevards to assure interconnectedness and mutual support between village centers (see Recommendation #1). Ensure Grand Boulevard standards are written into the General Plan, especially for the suggested major arteries in Mountain View (see below). This is a concept jointly recommended by both the Transit & Transportation and Land Use working groups.

Nineteen cities, San Mateo and Santa Clara counties, and local and regional agencies united to improve the performance, safety and aesthetics of the El Camino Real corridor. The vision of the Grand Boulevard initiative is for El Camino Real to achieve its full potential as a place for residents to work, live, shop and play, creating links that promote walking, transit and an improved quality of life.

The City of Mountain has endorsed the guiding principles, but is awaiting full endorsement until General Plan process. The City of Mountain View has approved several developments along El Camino that are very supportive of the Grand Boulevard concept, including Avalon Towers, a mixed-use development at 399 W. El Camino, and the 1.4 acre BMW dealership at 120 E. El Camino. Downtown Castro Street has implemented many of the Grand Boulevard principles.

However, Grand Boulevard concepts are applicable to more than just El Camino and Castro Street. This working group and the Transportation working group would like to see Mountain View introduce Grand Boulevard concepts to:

- Middlefield Rd.
- Rengstorff Ave.
- Shoreline Blvd. (especially north across 101)
- Moffett/Castro

in order to facilitate healthy village development and an emphasis on walkable community size and non-car modes of transportation.

Features of a Grand Boulevard include:

- Frequent, high capacity transit
- Safe and separate bike lane
- High walkability standards, including streetscape, safety, and connectivity

Implementing these concepts on a city-wide basis would provide a framework for redeveloping Mountain View's urban fabric and mobility system with an eye towards future growth and a sustainable high quality of life for all residents.

Environmental Impact

Grand Boulevard principles encourage residents to use non-car methods for accomplishing every day errands; the potential GHG reduction from implementing these principles could be enormous. For example, a typical grocery store trip in the Bay Area is about three miles one way.[28] If only 10% of City residents took advantage of a Grand Boulevard's amenities to use non-car methods of making that trip, the City would see a decrease in its internal GHG emissions by nearly 950 metric tons of CO2 per year.[29]

[28]Bay Area Economic Forum report, "Supercenters and the Transformation of the Bay Area Grocery Industry: Issues, Trends, and Impacts," page 61; http://www.bayeconfor.org/pdf/PPRSCscreen11.2.pdf

[29] 19.4 lbs / 20.6 miles * 6 mi/trip * 52 trips/year * 7070 residents = 2077344 lbs = 942 metric tons; see Appendix for statistical data references

Fiscal Impact and Synergies

Additional income from streetfront parking space rental will cover the costs for converting some of Castro Street's car parking into bicycle parking.

Implementing Grand Boulevard concepts can fit neatly in with existing plans for street upgrades and maintenance; working with developers and state planning and transportation agencies can ensure that these methods of development won't cost the city any undue fiscal burden.

The Transportation, Built Environment, and Biodiversity working groups all promote Grand Boulevard concepts in their reports; the Grand Boulevard is an overarching idea that can unite many sustainability goals into a cohesive plan for Mountain View's future.

Obstacles

Grand Boulevards emphasize alternative methods of transportation to make non-car transit methods more accessible, convenient, and enjoyable. This recommendation flips the modal priorities of these arteries and would require a wholesale shift in mindset of residents, the business community, and elected officials. A majority of community interests (residents, business owners, etc.) would need to buy into Mountain View's new commitment towards de-emphasizing car access to make these Grand Boulevard concepts truly function well.

Partnerships

State of California Climate Action Team: Land Use Subgroup (LUSCAT)
Caltrans
MTC

Appendix

Calculations

- EPA.gov says a gallon of gasoline is assumed to produce 8.8 kilograms (or 19.4 pounds) of CO2
- The Bay Area Economics Forum report cited above says a typical grocery store trip in the Bay Area is about three miles one way
- Estimating an average of one trip per week to the grocery store, or 52 in a year
- NRDC researchers, relying on data from CA DOT say the average bay area vehicle fuel economy is 20.6 miles per gallon
- Mountain View population numbers from http://www.mountainview.gov/services/learn_about_our_city/demographics.asp

Recommendation #9

Title: Ongoing Staff Education

Working Group: Land Use

Statement of Issue

Mountain View city staff needs proactive and regular education regarding current best practices in sustainable city management in order to make the healthiest decisions for our community.

Recommendation

The City should set aside staff education funds for a regularly-scheduled "Green Practices Update" session, to learn about sustainable best practices and current innovations in communities around the world.

Staff members review all planning decisions, ordinances, exceptions, etc. – staff should therefore actively be educated in the latest information on sustainable city planning.

This working group's ideal scenario:

- Training would occur during regular working hours
- Trainings would be mandatory for staff to attend
- Each training would have a related online resource (instead of paper handouts or manual) that would be available on the city website for residents to read as well
- Training sessions would be targeted towards specific areas of City operations, e.g.
    - Planning staff could learn about intelligent implementation of higher-density housing projects and mixed-use zoning and see examples of such in other communities
    - Public Works could learn about new materials and care methods for recreational open space

At minimum, a non-profit group (or two) could conduct a more generalized training session that touches on a variety of current topics in sustainable city management.

Environmental Impact

This recommendation's scope is more about people than technology or policy changes, therefore this working group was unable to calculate a specific numerical GHG emissions drop related to implementing this recommendation. However, this group maintains that a well-educated staff will make the best decisions for our city, thereby bringing the most effective positive environmental impacts to our city, including:

7) Improvement of overall City operations with regards to operations and resource use
8) A "trickle-down" effect to the community through excellent working examples in city operations and future development projects
9) An emphasis on healthy and sustainable projects throughout the city

Education is always a powerful force for positive change, and thoughtful, coherent, and regular on-the-job training will only improve our city's operations for years to come.

Fiscal Impact and Synergies

The fiscal implications are simply an annual outlay of some specific amount for training. Minimum cost is free, conducted by a local non-profit (see Partnerships below), ranging up to $25,000 for a training program done by senior partners from William McDonough + Partners (the premiere sustainable architectural and community design firm in the US).

Alternately, the City could choose to make the Sustainability Coordinator position permanent and have this person conduct the trainings; the fiscal outlay would then be that person's salary.

Obstacles

- Getting a budget for this training
- Scheduling staff time
- Getting supervisor buy-in to allow their staff to dedicate working hours to this educational program

Partnerships

Greenbelt Alliance

- The South Bay representative from Greenbelt Alliance has offered to do this type of training for free. See the Contacts section for her email and phone number.

Urban Land Institute
Sierra Club
US Green Building Council
Build It Green

Appendix

Contact Information

Michele Beasley
South Bay Field Representative
Greenbelt Alliance
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San Jose, CA 95126
(408) 983-0856
mbeasley@greenbelt.org

Recommendation #10

Title: Green Parking

Working Group: Land Use

Statement of Issue

The City's current parking code has permeated an oversupply of parking in many parts of Mountain View, dedicating too much of our precious land to the automobile and its temporary locations.

There are significant opportunity costs for dedicating land to parking; and there are simply better uses for land than a parking space. Many economists have argued that so much prime urban land is dedicated to parking that local government parking policies drives up the cost of just about everything, from housing to food; because the true costs of parking are bundled with goods and sold as a package.[30]

Recommendation

Overhaul the General Plan's parking guidelines and the City's parking code to establish a green parking plan that promotes pedestrian priorities and reduces land dedicated solely to automobile parking.

The General Plan Circulation Element should adopt a long-term goal for the reduction in internal combustion engine (ICE) auto trips, based on the Transit and Transportation group's goals. The parking code should reflect that overall goal so that parking supply matches the reduced automobile trips goal.
The Green Parking Code should:

- Require that new or redeveloped sites encourage easy walking access and connectivity between spaces over convenient access to auto parking (e.g. stack parking, and put it under or at least behind the building)
- Consider eliminating (or at least severely reducing) zoning requirements for off-street parking
- Encourage shared parking designs (residential and office blends, e.g. Avalon Towers)
- Allow greater reductions in parking requirements for well-connected higher-density commercial and residential space near transit, services and amenities
- Encourage standards for landscaping, tree plantings, and alternative energy uses according to the Biodiversity and Renewable Energy groups' recommendations (e.g. edible landscaping in existing parking lots; solar car ports) for existing lots
- Re-use existing dedicated parking land in ways to enhance livability and promote sustainable community needs
- Consider the needs of neighborhood electric cars and bicycles, and prioritize parking for them

For example, underutilized parking land (like the park n' ride near the Evelyn Ave. light rail stop) could be used to create community amenities; specifically ones that are missing in a given area due to lack of space. This could include necessity retail (grocery stores), info kiosks, bulletin boards, casual meeting spaces (benches, water fountains), and edible landscaping.

[30] Donald Shoup, *The High Cost of Free Parking,* Chicago: Planners Press, 2005.

The benefits are potentially tremendous: with less parking, there is more room for both people and businesses, and the right balance between supply and demand means less congestion from cruising, less noise, and less air pollution. Reduced parking requirements also ease entry for investors and/or developers who might otherwise build elsewhere. As the area becomes more appealing to pedestrians, it attracts both visitors and investors.[31]

Environmental Impact

"Free" parking provides the biggest per-mile subsidy to the shortest trips, meaning drivers have a major incentive to drive to destinations they would otherwise be able to reach with ease by foot or bicycle. A huge proportion of traffic congestion and GHG output is made up these short trips.[32] Reducing the prevalence of "free" parking could encourage residents to use non-car modes of transportation for these short trips (walking, biking, taking the bus). If 10% of Mountain View residents were deterred from making their weekly shopping trip via automobile, the city could see a decrease in its internal GHG emissions by nearly 950 metric tons of CO2 per year.[33]

Additionally, mono-use ground-level parking lots take a high toll on our local ecosystem, beyond their inherent prioritization of automobile transportation over more sustainable forms of transit. Parking lots' effects range from damaged watersheds (due to tainted runoff) to heat generation and the associated air pollution and energy inefficiencies.

Specifically, the heat stored and then radiated from parking lots directly increases the temperature of the surrounding area. This working group could not find any Mountain View-specific data on temperature increase over time, but the city of Los Angeles (one of the most extreme examples of this phenomenon) strikingly illustrates how substantial this "heat island" difference can be. As the city has been developed over the past 50 years, its average high temperature in the summer has increased by nearly one degree per decade. Among other things, this has contributed to the city's legendary smog problem, since ozone forms more readily at higher temperatures.[34]

Adopting a green parking policy that reframes car parking needs and "rightsizes" parking requirements can help mitigate this heat island effect and other damage from an oversupply of parking.

Fiscal Impact and Synergies

The reduction in parking requirements would have a positive fiscal impact in Mountain View. A July 2006 study of parking needs at the Mountain View Station found that the cost of construction of a surface parking lot, without land acquisition, is $7,000 per space. The cost of constructing a parking garage space, without land acquisition, is $25,000 to $35,000 per space.[35]

This recommendation is a joint proposal with the Transit & Transportation working group. That group's recommendation has a more in-depth analysis of the transit implications of this kind of policy.

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[31] Ryan McGreal, summarizing Shoup: http://www.raisethehammer.org/index.asp?id=072
[32] Ibid.
[33] See Land Use Recommendation #8 for calculation support
[34] http://retailtrafficmag.com/mag/retail_turning_heat_heat/
[35] Kimley-Horn and Associates, et al, "Caltrain Funding Priorities Study, Final Working Paper, Mountain View Station Parking Needs," July 2006.

Obstacles

Many Mountain View residents feel that parking supply is insufficient. Reducing parking supply is contrary to current public sentiment. A public policy that ties parking supply to desired parking demand based on a 10% decrease in VMT is a bold initiative, but will come under constant political pressure to increase parking supply.

Financial institutions often require minimum parking supply in order to provide project financing. Some developers may have trouble acquiring financing for projects with reduced parking requirements.

Partnerships

It would be beneficial to implement new parking code concepts in concert with neighboring cities, for consistency and equality. Most relevant: City of Palo Alto, City of Sunnyvale, City of Los Altos, and possibly also Cupertino and Menlo Park.